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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
VUONG, QUOCHIE B

ART UNIT	PAPER NUMBER
2685	

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/606,761

Applicant(s)

OGINO, TOORU

Examiner

Quochien B Vuong

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-23 is/are rejected.
- 7) ☒ Claim(s) 14 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5.6</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 02/03/03 and 06/23/03 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Objections

3. Claims 4-6 are objected to because of the following informalities:

In claim 4, line 2, the phrase "said first through said third variable attenuating elements" should be changed to --said first through third variable attenuating elements--
lines 3-4, "said first through said third control voltages" should be changed to --said first through third control voltages--.

In claim 5, line 5, the phrase "analog-to-analog converting sections" should be changed to --digital-to-analog converting sections--;

line 8, the phrase "said first through said third variable attenuating elements" should be changed to --said first through third variable attenuating elements--

In claim 6, line 2, the phrase "said first through said third variable attenuating elements" should be changed to --said first through third variable attenuating elements-- lines 3-4, "said first through said third control voltages" should be changed to --said first through third control voltages--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1, 2, 15, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Kenkel et al. (US 6,296,565).

Regarding claims 1 and 15, Kenkel et al. (figures 1-2) disclose a digital multiple reception apparatus and method comprising: first (102) and second (104) reception

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antenna; reception level control means (106 and 108), connected to the first and second reception antennas, for gradually increasing one of reception levels in the first and the second reception antennas during a predetermined time interval and for gradually decreasing another of the reception levels during the predetermined time interval; measuring means (110) for measuring strength of a received electric field during the predetermined time interval to produce a measured result; and selecting means (150) for selecting, in response to the measured result, one of the first and second reception antennas (see column 1, line 65 – column 2, line 24; column 2, line 40 – column 4, line 6).

Regarding claims 2 and 16, Kenkel et al. disclose the reception level control means comprises: first attenuating means (106) for attenuating the reception level in the first reception antenna; and second attenuating means (108) for attenuating the reception level in the second reception antenna, the reception level control means gradually decreasing an attenuation amount in the first attenuating means and gradually increasing an attenuating amount in the second attenuating means (column 1, line 65 – column 2, line 16).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenkel et al. in view of Niki (US 4,620,147).

Regarding claim 3, Kenkel et al. disclose the apparatus of claim 2 above. Kenkel et al. do not specifically disclose the first and second attenuating means are composed of a T-type attenuator including first through third variable attenuating elements having first through third attenuating amounts which vary in accordance with first through third control voltages supplied thereto. However, Niki disclose attenuator means composed of a T-type attenuator including first through third variable attenuating elements having first through third attenuating amounts which vary in accordance with first through third control voltages supplied (column 8, lines 12-21). Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the T-type attenuator including first through third variable attenuating elements having first through third attenuating amounts which vary in accordance with first through third control voltages supplied to the first and second attenuating means of Kenkel et al. as a system design choice serving the same function as to gradually control the attenuation of the received signal.

Regarding claim 4, Kenkel et al. and Niki disclose the apparatus of claim 3 above; in addition, Niki discloses the first through third variable attenuating elements comprise first through third pin diodes having anode electrode supplied with the first through third control voltages (column 8, lines 12-21).

Regarding claim 5, Kenkel et al. and Niki disclose the apparatus of claim 3 above; in addition, Kenkel et al. disclose memories for storing data corresponding to the

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control voltages; and digital-to-analog converting sections for converting data read from the memories into analog signals, respectively, the analog signals being supplied to the first through third variable attenuating elements as the control voltages (P1 and P2) (figure 1, column 3, line 51 – column 4, line 44).

Regarding claim 6, Niki further discloses the first through third variable attenuating elements comprise first through third pin diodes having anode electrode supplied with the first through third control voltages (column 8, lines 12-21).

8. Claims 7, 8, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenkel et al. in view of Nakamura (US 6,243,563).

Regarding claim 7 and 17, Kenkel et al. disclose the apparatus and method of claims 1 and 15 above, respectively. Kenkel et al. do not disclose the measuring means measures a first accumulated amount of the strength of the received electric field in a first half within the predetermined time interval and a second accumulated amount of the strength of the received electric field in a later half within the predetermined time interval, and the selecting means selecting one of the first and second reception antennas in accordance with a comparison result between the first and second accumulated amounts. However, Nakamura discloses a measuring means measures a first accumulated amount of the strength of the received electric field in a first half within the predetermined time interval and a second accumulated amount of the strength of the received electric field in a later half within the predetermined time interval, and the selecting means selecting one of the first and second reception antennas in accordance

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with a comparison result between the first and second accumulated amounts (column 5, line 44 – column 6, line 20). Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the teaching of Nakamura to the apparatus and method of Kenkel et al. for proper measurement of the strength of the received electric field from first and second antennas and switching them accordingly.

Regarding claims 8 and 18, Kenkel et al. and Nakamura do not disclose the measuring means decreases a frequency of measurement when a current comparison result is identical with a previous comparison result. However, it would have been obvious for the measuring means of Kenkel et al. and Nakamura to decrease a frequency of measurement when a current comparison result is identical with a previous comparison result in order to save power when the condition is stable and not changing.

9. Claims 9-13 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenkel et al.

Regarding claims 9-13 and 19-23, Kenkel et al. disclose the apparatus and method of claim 1 and 15 above, respectively. Kenkel et al. do not specifically disclose the measuring means decreases a frequency of measurement when the digital multi reception apparatus is put into a reception wait state, located outside an area when an electric wave to be received reaches, accordance with a moving speed, low battery power supply, or in accordance with a value of strength of a received electric field. However, the differences do not involve any inventive ideas, since it would have been

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obvious for the measuring means of Kenkel et al. to decrease a frequency of measurement when the digital multi reception apparatus is put into a reception wait state, located outside an area when an electric wave to be received reaches, accordance with a moving speed, low battery power supply, or in accordance with a value of strength of a received electric field in order to save power when the apparatus is not in the active state (wait state , out of area, low battery supply power, etc.).

Allowable Subject Matter

10. Claims 14 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 14 and 24, Kenkel et al. disclose the apparatus and method of claims 13 and 23 above, respectively. However, Kenkel et al. fail to teach or suggest the measuring means shortens the predetermined time interval when a difference between the first and the second accumulated values is larger a predetermined value.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B Vuong whose telephone number is (703) 306-4530. The examiner can normally be reached on M-F 9:30-18:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (703) 305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



QUOCHIE B. VUONG
PRIMARY EXAMINER

Quochien B. Vuong
Sep. 29, 2004.